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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,831	09/10/2003	Peter J. Black	990486D1	5958
23696 7590 07/12/2010 QUALCOMM INCORPORATED 5775 MOREHOUSE DR. SAN DIEGO, CA 92121				
EXAMINER				
TSEGAYE, SABA				
ART UNIT		PAPER NUMBER		
2467				
NOTIFICATION DATE		DELIVERY MODE		
07/12/2010		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

us-docketing@qualcomm.com

Office Action Summary

Application No.

10/659,831

Applicant(s)

BLACK ET AL.

Examiner

SABA TSEGAYE

Art Unit

2467

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5, 6 and 12-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 6 and 12-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. This office Action is in response to the amendment filed 02/17/10. Claims 1-3, 5, 6 and 12-17 are pending. Currently no claims are in condition for allowance.

Claim Rejections - 35 USC § 103

2. Claims 1-3, 5, 6 and 12-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over McDonough (US 6,452,959 B1) in view of Czaja et al. (US 6,459,689 B1).

Regarding claims 1, 12 and 15, McDonough discloses an apparatus, comprising: a first PN generator (see fig. 4; PN sequence generator; column 8, line 29-column 9, line 62) to generate a first PN sequence at a first offset (*a first offset data associated with a first base station, which is IS-95 system; column 10, line 65-column 11, line 2*); a first spreader to receive and spread a first pilot data with the first PN sequence (*according to IS-95 standards, the short code I-sequence is associated with polynomial $P_{I(s)} = X^{15} + X^{13} + X^9 + X^8 + X^7 + X^5 + 1$; and the Q-sequence is associated with the polynomial $P_{Q(s)} = X^{15} + x^{12} + x^{11} + x^{10} + x^6 + x^5 + x^4 + x^3 + 1$...; column 12, line 64-column 13, line 13*); a second PN generator to generate a second PN sequence at a second offset (*a second offset data associated with a second base station, which is IS-2000 system; column 10, line 65-column 11, line 2*), wherein the first PN sequence is generated from equation different from equations used to generate the second PN sequence (column 12, line 62-column 13, line 13); and a second spreader to receive and spread a second pilot data with the second PN sequence (*...the PN sequence are defined to be truncated sequences of a maximal length linear feedback shift register sequence based upon the $P(x) = X^{20} + X^9 + X^{53} X^3 + 1$...; column 13, lines 14-26*).

However, McDonough does not explicitly disclose first and second frequencies.

Czaja teaches a CMA cellular system that permit Mobile Assisted Handoff between base stations that use different carrier frequencies by performing periodic searches of the different carrier frequency base station pilots (Abstract Summary).

It would have been obvious to one ordinary skill in the art at the time the invention was made to use different frequencies, such as that suggested by Czaja, in the communication system (for example Fig. 10) of McDonough in order provide hard handoff between base stations where soft handoff is impossible.

Regarding claims 2 and 3, McDonough discloses wherein the first frequency uses a different CDMA format than the second frequency (IS-95 standard and IS-2000 standard; column 13, lines 7-20).

Regarding claims 5, 6, 13, 14, 16 and 17, McDonough discloses that according to IS-95 standards, the short code I-sequence is associated with polynomial $P_{I(x)} = X^{15} + X^{13} + X^9 + X^8 + X^7 + X^5 + 1$; and the Q-sequence is associated with the polynomial $P_{Q(x)} = X^{15} + x^{12} + x^{11} + x^{10} + x^6 + x^5 + x^4 + x^3 + 1$ (column 12, line 64-column 13, line 13).

Response to Arguments

3. Applicant's arguments with respect to claims 1-3, 5, 6 and 12-17 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SABA TSEGAYE whose telephone number is (571)272-3091. The examiner can normally be reached on Monday-Friday (7:30-5:00), First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pankaj Kumar can be reached on (571) 272-3011. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Saba Tsegaye
Examiner
Art Unit 2467

/S. T./
Examiner, Art Unit 2467

/Pankaj Kumar/

Supervisory Patent Examiner, Art Unit 2467